

4/17/2018

Print



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	To
PO039198	MEC002-VU	1	1	Net 30	AND10136-1301	T-Extrusion, Aluminum				20	4/16/2018	20		S061826	Stock	4/17/2018	\$ 21.43 / ft	0		\$421
Total:										20		20								\$421

Plex 4/17/2018 12:33 PM Dart Dubois Pascal



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO039198

**Supplier:** MEC002-VU  
Metaux Castle  
P.O. Box 4090 Stn A  
Toronto  
ON  
M5W OE9 Canada

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**PO No:** PO039198

**PO Date:** 3/5/18

**Due Date:** 4/16/18

**Purchase Order**

**Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
clavoie@dartaero.com

**Via:** Ground

**Pymt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

*replacement mat 1/2*

## Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	AND10136-1301		T-Extrusion, Aluminum	Firmed	4/16/18	20 ft	0 ft	20 ft	\$21.43/ft	\$428.60

DAS  
11  
9-89

APR 17 2018

**Line Item Note** note: cut extrusion in half

**Grand Total:** \$428.60

## Order Notes

Procurement Quality Clauses  
A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

*[Signature]*

Plex 3/28/18 1:00 PM dart.lavoie.chantal



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No: 3558855

<b>Ship From:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
<b>Date Shipped</b> 04-APR-18	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid	<b>Carrier</b> MANITOULIN	<b>BOL No</b> 3558855-2

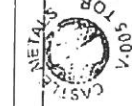
Shipment Details

<b>Order No</b> 5086378	<b>Line No</b> 1	<b>Item No</b> 36-1301-23-240.MO	<b>Description</b> AND10136-1301.2024.T3511.ALUMINUM.240.0000.T01 CUT TO 120 IN ( + .2500/- .2500 IN) - EXTRUSION SAW SPECIFICATIONS: AMS-QQ-A-200/3
<b>Purchase Order No</b> 39198	<b>Part Number</b> YOUR ITEM NUMBER: AND10136-1301	<b>Ordered Qty</b> 2.00 PCS	<b>Invoice Qty</b> 20.0000 FT

**Details**  
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY  
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #'S  
Email P/s and certs to: clavoie@dataero.com  
END USER: DART AEROSPACE  
END USE: COMMERCIAL AIRCRAFT PARTS

<b>Delivery No.</b> 121714653	<b>Mill/Source</b> ARCONIC INC	<b>Heat Number</b> [REDACTED]	<b>Mech Id</b> 2	<b>PCS</b> 2	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty(LBS)</b> 2.5400
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We hereby certify the material covered by this certification conforms in accordance with the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are subject to examination. Material cut to the correct size, or material cut by the customer cannot be returned for credit.  
Reviewed by Authorized Castle Metals Representative: [Signature]



APR 04 2018

Date: Name:

Date Printed: 04-APR-2018 03:04:29 PM

hbs1h0h2



ARCONIC FORGING AND EXTRUSIONS  
Pinalco Inc  
6833 West Willis Road  
Chandler, AZ  
85226

Pinalco, Inc., a subsidiary of Arconic Inc.

Invoice To Customer

A M CASTLE & COMPANY DIP  
1420 KENSINGTON ROAD  
SUITE 230  
ATTN: ACCOUNTS PAYABLE  
Oak Brook, IL - 60521

Ship To Customer

A M CASTLE & COMPANY DIP  
3050 HYDRAULIC  
WICHITA, KS - 67216

# Certified Inspection Report

Sales Order Number		Customer PO		Cert Number	Page
100957413	Line No. 1.1	443980-1	09-NOV-17	AEI1749334	1/2
Quantity Shipped		Date Shipped	Cert Print Date		

549	L.B	09-NOV-17	Item Description
W/L		Item No.	Extended Solid Shape
2354170		G03404472	SECT 11743
Delivery ID		Item No. Rev	240 IN LN
11560905			2024 / T3511
Customer Part No			W/F 0.127 F 32 CS 1.38
			Marking CONTINUOUS; Oiling Y
			AND 10136-1301 CML100-1 REV 1 & W
			AMS-QQ-A-2003F REV N/A
			ASTM B271 REV 13
			CMMPO11 REV 11
			CST1016 REV 11
			FED-STD-245 REV E
			QRD 742 REV 1

## Notes

CLARIFICATION: In lieu of CST1016, we will inspect per CST1020. CST1016 is not applicable for procurement and inspection of this order due to the part thickness or geometry. CLARIFICATION: When this note appears on the material certification, it indicates that the chemistry has been successfully completed. EXCEPTION to CST1020 Para 4.1: Obtaining Cesna approval of new die prints is the responsibility of the purchaser. We will obtain Cesna approval only when Cesna is the direct customer.

CLARIFICATION: AMS-11-6088 has been superseded by AMS 2772. We meet the requirements of AMS 2772. EXCEPTION: Electrical conductivity testing shall not be conducted for 2024 alloy unless CST1008 is on the order. There are no electrical conductivity testing requirements specified in the material specifications CMMPO11 or AMS-QQ-A-2003F.

CLARIFICATION: Products produced and marked to the requirements of AMS-QQ-A-2003F also meet the requirements of QQ-A-2003F. Products produced and marked to the requirements of QQ-A-2003F also meet the requirements of AMS-QQ-A-2003F.

REFERENCE CONTAINER CODE: - AMC CA-01133

COMPOSITION NOTE: The values for 'Others Each' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

## Legal Statement

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

## Signature And Title

*Cornelia P. Watson*  
Cornelia Watson  
Quality Assurance Manager  
09-NOV-17

## Quantities per Lot / Packages

Package Number	Lot Number	Quantity	UOM	Weight	
				Gross	Net
G16-PKG650313	24971619	71	PCS	202	193
G16-PKG650314	24971619	70	PCS	199	190
G16-PKG650315	24971620	61	PCS	175	166

## Composition Limits

Alloy	Wt %	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
2024	Min	0.50	0.50	3.8	0.30	1.2	0.10	0.25	---
	Max	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15



ARCONIC FORGING AND EXTRUSIONS



Pinalco Inc.  
6833 West Willis Road  
Chandler, AZ  
85226

# Certified Inspection Report

Sales Order Number		Customer ID#		Cert Number		Page	
1000957413		443989-1		AEP1749334		2/2	
Line No.		Line		09-NOV-17		Cert Print Date	
11		11		09-NOV-17		09 NOV-17	

Others Total		...		0.15	
Wt %		Others Each		0.05	
Min		Max		0.05	

## Composition Results

Heat / Cust / Lot Number	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
374756	0.06	0.17	4.6	0.46	1.6	0.004	0.07	0.03

## Composition Results

Heat / Cust / Lot Number	Others Each	Others Total
374756	--	--

## Mechanical

### Property - Test Results

Test Type		UTS - L	TYS - L	EL 4D-Long
UOM		KSI	KSI	PCT
# of Tests				
Test Temper	Lot Number	Piece / Test ID	Results	Results
T3511	24971619	1R	65.4	48.2
T3511	24971620	1R	65.0	47.7
T42	24971619	2R	64.4	40.2
T42	24971620	2R	63.7	41.8

## Cert Notes

Arconic - Pinalco Inc. manufactured the item described above in a plant whose quality management system is certified/registered as being in conformity with ISO9001:2008 & AS9100 Rev C by BSI Management Systems under Certificate # FM578752.

Made in USA

The test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.






Castle Metals®

## INTRA-COMPANY TRANSFER PROFORMA INVOICE

A.M. Castle & Co.

<b>Vendor (Name and Address)</b> A.M. Castle & Co. - WICHITA EAST - CASTLE METALS A.M. Castle & Co. 3050 S HYDRAULIC WICHITA, KS 67216	<b>Date of Direct Shipment</b> 27-MAR-18	<b>Place PRO Number Here</b>
<b>Tax Registration Number:</b> 36-0879160	<b>Other References (Include Bill of Lading No.)</b> 3553559-2	
<b>Consignee (Name and Address)</b> A.M. Castle & Co. - TORONTO - CASTLE METALS A.M. Castle & Co. (Canada) Inc. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7	<b>Purchaser (Name and Address)</b> A.M. Castle & Co. - TORONTO - CASTLE METALS A.M. Castle & Co. (Canada) Inc. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7	
<b>Tax Registration Number:</b> 13835 3438 RC0001	<b>Tax Registration Number:</b> 13835 3438 RC0001	
<b>Transportation</b> XPO LOGISTICS FREIGHT	<b>Conditions of Sale and Terms of Payment</b> 1% 10, NET 30	
<b>INCO Term:</b> DDP - MISSISSAUGA, ON, L5N 2K7, CAN	<b>Currency of Settlement</b> USD	

Item	Specs of Commodities	Order-Line-Ship	# Pkgs.	Weight	Heat	Tariff Code	Export License	ECCN	ITAR
36-1301-23-240. MO	AND10136-1301.2024.T3511.ALUMINUM.240.0000.T01					7604291000	NLR	EAR99	N/A
	5086378-1-1	1	2.54 LBS	24971619	US	20.00	FT	\$12.2701	\$31.16

<b>Invoice Package Total</b>	<b>Total Weights</b>	<b>Invoice Total</b>
1	<b>Net</b> 2.54	<b>Gross</b> 9.54
		\$31.16
<b>* Price per UOM and Total Price have been adjusted to include Processing and Handling Charges if applicable.</b>		
<b>Originator (Name and Address)</b> A.M. Castle & Co. - Wichita East 3050 S HYDRAULIC 171730860 WICHITA, KS 67216UNITED STATES		
<b>Signature:</b> 		

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

3/28/2018 14:54 PM

INTERORG TRANSFER  
PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 2

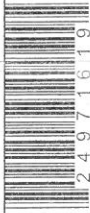
Shipment No:35535559

<b>Ship From:</b> A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	<b>Ship To:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
<b>Date Shipped</b> 28-MAR-18	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid	<b>Carrier</b> XPO LOGISTICS FREIGHT	<b>BOL No</b> 35535559-2

<b>Shipment Details</b>	<b>Final Destination Branch - TOR</b>
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<b>Order No</b> 5086378	<b>Line No</b> 1	<b>Item No</b> 36-1301-23-240.MO	<b>Description</b> AND10136-1301.2024.T3511.ALUMINUM.240.0000.T01 CUT TO 120 IN ( + .2500/- .2500 IN) - EXTRUSION SAW SPECIFICATIONS: AMS-QQ-A-200/3
<b>Purchase Order No</b> 39198	<b>Part Number</b> YOUR ITEM NUMBER: AND10136-1301	<b>Ordered Qty</b> 2.00 PCS	<b>Invoice Qty</b> 20.0000 FT

<b>Details</b>	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS		
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<b>Delivery No.</b> 121714653	<b>Mill/Source</b> ARCONIC INC	<b>Heat Number</b>  24971619	<b>Mech Id</b> 2	<b>PCS</b> 2	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty(LBS)</b> 2.5400
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These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Date Printed: 28-MAR-2018 02:54:03 PM

INTERORG TRANSFER  
PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 2 of 2

*Amnon D. Yagor*  
OSPAC  
K-46 K-3

Reviewed by Authorized Castle Metals Representative:	Date:	Name:
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ARCONIC FORGING AND EXTRUSIONS  
Pinalco Inc.  
6833 West Willis Road  
Chandler, AZ  
85226

Pinalco, Inc., a subsidiary of Arconic Inc.

Invoice To Customer  
A M CASTLE & COMPANY DIP.  
1420 KENSINGTON ROAD  
SUITE 220  
ATTN: ACCOUNTS PAYABLE  
Oak Brook, IL - 60523

Ship To Customer  
A M CASTLE & COMPANY DIP.  
3050 S HYDRAULIC  
WICHITA, KS - 67216

## Certified Inspection Report

Sales Order Number		Customer P/O		Cert Number		Page	
1000957413		I.1		AEP1749334		1/2	
Line No.		443989-1		09-NOV-17		Cert Print Date	
1000957413		I.1		09-NOV-17		09-NOV-17	

Quantity Shipped		Date Shipped		Item Description	
549		09-NOV-17		Extruded Solid Shape	
B/L		Item No.		SECT 11743	
2354170		G03404472		240 IN LN	
Delivery ID		Item No. Rev		2024 / T3511	
11566905				W/F 0.127 F 32 CS 1.38	
Customer Part No				Marking CONTINUOUS; Oiling Y	
				AND10136-1301 CM3209-1 REV 3 & W	
				AMS-QQ-A-200/3 REV N/A	
				ASTMB221 REV 14	
				CMMPO11 REV B	
				CST1036 REV U	
				FED-STD-245 REV E	
				QRD 742 REV I	

### Notes

CLARIFICATION: In lieu of CST1036, we will inspect per CST1020. CST1036 is not applicable for procurement and inspection of this order due to the part thickness or geometry. CLARIFICATION: When this note appears on the material certification, it indicates that the chemistry has been successfully completed. EXCEPTION to CST1020 Para 4.1: Obtaining Cessna approval of new die prints is the responsibility of the purchaser. We will obtain Cessna approval only when Cessna is the direct customer.

CLARIFICATION: AMS-H-6088 has been superseded by AMS 2772. We meet the requirements of AMS 2772.

EXCEPTION: Electrical conductivity testing shall not be conducted for 2024 alloy unless CST1008 is on the order. There are no electrical conductivity testing requirements specified in the material specifications CMMPO11 or AMS-QQ-A-200/3.

CLARIFICATION: Products produced and marked to the requirements of AMS-QQ-A-200-3 also meet the requirements of QQ-A-200/3F. Products produced and marked to the requirements of QQ-A-200/3F also meet the requirements of AMS-QQ-A-200-3.

REFERENCE CONTAINER CODE - AMC CA-01133

COMPOSITION NOTE: The values for 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

### Legal Statement

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

### Signature And Title

*Concetta Watson*

Concetta Watson  
Quality Assurance Manager  
09-NOV-17



### Quantities per Lot / Packages

Package Number	Lot Number	Quantity	UOM	Weight	
				Gross	Net
G16-PKG650313	24971619	71	PCS	202	193
G16-PKG650314	24971619	70	PCS	199	190
G16-PKG650315	24971620	61	PCS	175	166

### Composition Limits

Alloy	Wt %	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
2024	Min	---	---	3.8	0.30	1.2	---	---	---
	Max	0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15



# Certified Inspection Report

Cert Number AEP1749334	Page 2/2
09-NOV-17	Cert Print Date 09 NOV-17

Sales Order Number 1000957413	Customer I/O 443989-1
Line No. 1.1	

Alloy	Wt %	Others Each	Others Total
2024	Min Max	— 0.05	0.15

Composition Results	Heat / Cast / Lot Number	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
374756		0.06	0.17	4.6	0.46	1.6	0.004	0.07	0.03

Composition Results	Heat / Cast / Lot Number	Others Each	Others Total
374756		—	—

Mechanical Property -	Test Results	Test Type	UTS - L	TYS - L	EL 4D-Long
		UOM	KSI	KSI	PCT
		# of Tests			
Test Temper	Lot Number	Piece / Test ID	Results	Results	Results
T3511	24971619	1R	65.4	48.2	20.9
T3511	24971620	1R	65.0	47.7	16.5
T42	24971619	2R	64.4	40.2	18.7
T42	24971620	2R	63.7	41.8	19.2

Cert Notes
<p>Arconic - Pinalco Inc. manufactured the item described above in a plant whose quality management system is certified/registered as being in conformity with ISO9001:2008 &amp; AS9100 Rev C by HSI Management Systems under Certificate # FM78752.</p> <p>Made in USA</p> <p>The test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate.</p> <p>The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.</p>



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: AND10136-1301  
 DATE: APR 17 2018

PO / BATCH NO.: 039198/5061826

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 20'  
 QUANTITY INSPECTED: 20'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.75  
 THICKNESS RECEIVED: 0.75  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>AMS-QQ-A-200/3</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	<u>Heat # 24971619</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input type="radio"/> Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input type="radio"/> Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 APR 17 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

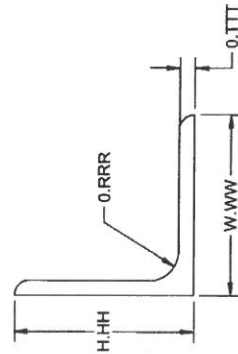
A horizontal number line with tick marks labeled 7, 6, 5, 4, 3, 2, and 1 from left to right.

PART NUMBER: M2024T3A

H.HH	X.WW	X.TT	X.RRR
HEIGHT	WIDTH	THICKNESS	RADIUS

WHERE H.HH = HEIGHT  
W.WW = WIDTH  
0.TT = THICKNESS  
0.RRR = RADIUS

E.G. 0.75" X 0.75" X 0.125" X 0.125" = M2024T3AH0.75XW0.75XT0.125XR0.125



RELEASED  
2011-03-02

[illegible]

FED. SUP CLASS  
9540

## NOTES ON SYMBOLS

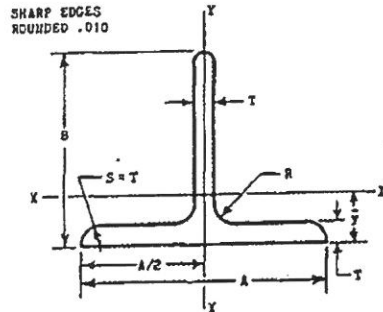
"y" = LOCATING DIMENSIONS FOR AXIS XX.

 $I_{xx}$  (and  $I_{yy}$ ) = MOMENT OF INERTIA ABOUT XX AND YY. $P_{xx}$  (and  $P_{yy}$ ) = RADIUS OF GYRATION ABOUT XX AND YY.

DASH NUMBER: IS DIE NUMBER AND INDICATES EACH SHAPE AND SIZE OF SECTION. EXAMPLE: IN "AND10136-1401", "10136" INDICATES "TEE", 14 INDICATES 1-1/8" FOR DIMENSION "A" (1.500 IN COL. "A"). 01 IN 1401 IS SERIAL NUMBER ONLY.

MATERIAL SHALL BE IN ACCORDANCE WITH APPLICABLE GOVERNMENT SPECIFICATIONS.

③ REINSTATE - 3 Mar 82



AND 10136 DASH NO'S	NOMINAL DIMENSIONS				AREA  Square Inches	SECTION ELEMENTS				
	A	B	T	R		$\bar{y}$	$I_{xx}$	$I_{yy}$	$P_{xx}$	$P_{yy}$
	Inches					Inch	Inches <sup>4</sup>	Inch		
-1201	1.250	.625	.050	.094	.0937	.121	.0028	.0077	.173	.287
-1202		.750	.063	.125	.127	.160	.0045	.0042	.209	.276
-1301		.750	.056	.094	.106	.148	.0046	.0103	.209	.312
-1302			.063		.110	.228	.0131	.0129	.296	.293
-1303	1.3750	1.000	.078	.125	.183	.235	.0156	.0158	.292	.294
-1304			.078		.216	.242	.0182	.0183	.290	.295
-1305		1.250	.094		.240	.327	.0345	.0189	.379	.280
-1401		.750	.063		.141	.111	.0052	.0169	.192	.326
-1402	1.500		.094		.204	.159	.0030	.0244	.178	.346
-1403		1.000	.078		.193	.225	.0160	.0200	.288	.327
-1404			.094	.125	.228	.332	.0186	.0245	.286	.338
-1405			.078		.212	.307	.0301	.0206	.377	.312
-1406	1.250	.094		.252	.314	.0354	.0245	.375	.312	
-1407			.125		.326	.327	.0449	.0319	.371	.313
-1501		.875	.078		.192	.180	.0110	.0263	.240	.370
-1502			.125		.295	.198	.0161	.0407	.234	.372
-1503	1.6250	1.125	.078	.125	.212	.254	.0228	.0263	.328	.352
-1504			.125	.125	.326	.274	.0339	.0203	.322	.364
-1505			.094		.275	.365	.0475	.0114	.415	.338
-1506		1.375	.125		.358	.348	.0605	.0408	.411	.338
-1507	.875		.156		.437	.370	.0725	.0499	.407	.338
-1601			.094		.240	.179	.0131	.0393	.234	.405
-1602			.125		.311	.191	.0164	.0512	.230	.406
-1603		1.125	.094		.263	.252	.0273	.0347	.322	.336
-1604	1.750		.156	.125	.418	.276	.0412	.0640	.314	.387
-1605		1.375	.094	.125	.287	.333	.0484	.0593	.411	.370
-1606			.156		.457	.358	.0741	.0647	.403	.371
-1607			.094		.313	.420	.0777	.0394	.520	.356
-1608	1.625	.125		.405	.431	.0895	.0513	.496	.356	
-1609		.156		.497	.446	.1200	.0629	.492	.356	

This standard is approved for use by the Department of the Air Force and is available for use by all Department and Agencies of the Department of Defense.

F. A. Air Force - 11  
Other Civil  
NO INTERESTINTERNATIONAL  
INTEREST

TITLE

TEE - EXTENDED

ARMY-NAVY AERONAUTICAL DESIGN STANDARD

AND10136

PROCUREMENT SPECIFICATION  
NONE

SUPERSEDES:

DD FORM 672-1 (LIMITED COORDINATION)  
1 MAY 71

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

Project No. 9540-0077

APPROVED 2 SEP 83 REVISED ① 20 MAR 85 ② 1 SEP 81 ③ 3 MAR 82

- NOTES:
- 1) MATERIAL: AND10136-1301 (2024-T351) ANGLE
  - 2) HEAT TREAT: N/A
  - 3) FINISH: RED ANODIZE
  - 4) SPEC: MIL-A-8825 TYPE II CLASS 2: WATER SEALANT
  - 5) BREAK ALL SHARP EDGES .015 x 45° OR .015R
  - 6) IDENTIFICATION: N/A

RB T101445-7 TEE 2

<b>DART</b> AEROSPACE Huntsville, Ontario, Canada	
TITLE	
TEE 2	
PART NO.	REV
RB T101445	A
TOOL NO.	
RB T101445-7	
INITIALS AND DATE	
DESIGNED BY: VJA 1/28/2018	DESIGNED BY: VJA 1/28/2018
CHECKED BY: VJA 02/08/2018	CHECKED BY: VJA 02/08/2018
WFO REVIEW BY: DD 02/15/2018	WFO REVIEW BY: DD 02/15/2018
APPROVED BY: ML 04/13/2018	APPROVED BY: ML 04/13/2018
SCALE: NTS	
SHEET 4 OF 5	
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